

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001184**Date Inspected:** 31-Dec-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 1300**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2330**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Zhi Jiang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and Tower Mockup**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector Joe Lanz arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to periodically monitor welding and Quality Control (QC) functions during second shift. While on site the QA Inspector observed and/or discovered the following.

Bay 1

The QA inspector performed ultrasonic verification testing of the partial joint penetration welds on the Deck mockup, piece mark MU3. The ultrasonic testing (UT) was performed to verify the weld depth of penetration and testing performed by ZPMC personnel meet the requirements of the contract documents. The base metal lamination check was performed with a 1.0"dia. round 2.25 MHz transducer. The shear wave scan was performed with a 0.375" 3.25 MHz transducer on a 70 degree angle wedge from face A. Scanning patterns A, B and C were utilized. Following is a list of welds examined and the relevant indications of inadequate penetration observed in accordance with the contract documents.

Deck Trial Mockup MU3

Rib and Weld ID	Area examined	Indication Y location	Length	Depth of lack of penetration	Discovered by
U-01, W-2	11m to 12m	N/A	N/A	N/A	N/A
U-02, W-1	8m to 9m	8,880mm	20mm	2.97	ZPMC
U-02, W-2	0 to 1m	560mm	15mm	2.77	QA inspector
U-03, W-1	1m to 2m	N/A	N/A	N/A	N/A
U-03, W-2	3m to 4m	N/A	N/A	N/A	N/A
U-04, W-1	5m to 6m	N/A	N/A	N/A	N/A

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U-04, W-2	4m to 5m	4,070mm	23mm	3.0	ZPMC
U-04, W-2	4m to 5m	4,600mm	40mm	2.89	QA inspector
U-05, W-1	6m to 7m	N/A	N/A	N/A	N/A

The QA inspector did not concur with the NDT level II technician's assessment. The above issues were brought to the attention of METS Lead QA Inspector Alfredo Acuna. An Ultrasonic Test Report (TL-6027) for the welds that were tested was not generated for this date.

Summary of Conversations:

No relevant conversations on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Lanz,Joe	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer
